XXXI. Descriptions of new East-Asiatic Species of Haliplidæ and Hydroporidæ. By the Rev. HAMLET CLARK, M.A., F.L.S.

#### [Read 6th Oct. 1862.]

The insects described in this Paper have either been received by me during the last few years through Mr. Stevens, or communicated by the kindness of Mr. Bowring. Mr. Henry Adams, who has spent several years on the coast of China, has also contributed interesting species; his collection is singularly rich in this group, and proves how that, with even few opportunities, additions that are most important may be made to local faunas by travellers: Mr. Bowring's collection contains many new and interesting minute forms from Java.

#### Tribus I. HALIPLIDES.

Genus 1. Haliplus, Lat.

1. Haliplus variabilis, n. sp.

Ovatus, sat latus, apicè subacuminatus, fortiter et crebrè punctatus, testaceus, elytris nigro-maculatis; capite subproducto, ad basin antennarum transversè depresso, subpunctato, rufo, ad basin maculis duabus rufis; thorace lateribus subrotundatis, obliquis, basi ad medium latè angulato, subtiliter punctato, ad apicem et basin punctorum seriebus ornato, ad basin etiam foveolis duabus nigris; elytris punctato-striatis, punctis nigris ad dorsum latis, ad apicem parvis, octo-maculatis, unâ undique ante medium, duabus mediis, unâ post medium; corpore subtus testaceo, antennis flavis, pedibus flavis, tarsorum posticorum articulis nigris.

Long. corp.  $1\frac{4}{5}$  lin.; lat. lin. 1.

In the maculations of the elytra this species is subject to considerable variety; in most of the examples before me there are on each elytron four regularly disposed circular markings; in others the two adjoining the suture together form one; in others the apical portion of the elytra is more or less partially fuscous-black; while in others, throughout the whole surface, the different markings are entirely absent.

The species is a common one, and has an extensive range: I VOL. I. THIRD SERIES, PART V.—FEB. 1863. FF

have, by the kind liberality of Mr. Arthur Adams, received a series both from the Corea and from Canton.

Mr. Bowring has taken it near Amoy.

## 2. H. pulchellus, n. sp.

Ovatus, apicè attenuatus, nigro-punctatus, pallidè testaceus, lineâ a capite ad apicem latâ mediâ inæquali, maculisque minutis ad elytra nigris; capite sparsim punctato, ad basin antennarum transversè foveolato, rufo vel rufo-fusco; thorace lateribus obliquis subrotundatis, basi sinuato, punctato, medio vittâ subtriangulari nigrâ; elytris punctis sat parvis nigris ordine dispositis, basi mediâ vittâque suturali, maculisque undique minutis parvis nigris, vittâ ante medium iterumque post medium latiori; corpore subtus pallidè flavo, pedibus antennisque rufis.

Long. corp. lin.  $1\frac{1}{2}$ ; lat. lin.  $\frac{2}{3}$ .

The medial longitudinal marking, which so strikingly designates this species, slightly varies in form; in all examples before me it is broader near the middle, and also near the apex, differing somewhat in outline and in breadth.

Mr. Bowring has received two specimens from Siam, and Mr. Wallace has taken the species near Malacca.

# 3. H. eximius, n. sp.

Elongato-ovalis, sat convexus, ad apicem acuminatus, striatopunctatus, rufus; capite infra antennarum basin transversè
depresso, leviter punctato; thorace anticè emarginato, lateribus rectis, obliquis, basi sinuato fortiter sed sparsim punctato,
elytris elongatis, striato-9-punctatis, interstitiis etiam leviter
striato-punctatis, corpore subtus rufo-fusco, pedibus antennisque rufis.

Long. corp. lin.  $1\frac{3}{5}$ ; lat. lin.  $\frac{4}{5}$ .

In form and colour generally H, eximius much resembles H, rubidus, Perris (= perforatus, Schaum), from the Pyrenees: the thorax of the species before us is broader at the base, more contracted towards the front, and less closely punctate; the elytra are the same in form (a trifle narrower and more acuminated); the interstices between the rows of punctures have each of them a row of similarly arranged but smaller punctures (the similar interstitial punctures in H, rubidus being more interrupted).

Two examples of this species were taken in a pond on Deer

Island, Tsau-li-an, Korea, by Mr. A. Adams, and by him kindly placed in my collection.

## 4. H. simplex, n. sp.

Ovalis, convexus, ad apicem subacuminatus, testaceus, punctis maculisque nigris; capite sparsim punctato, fulvo, ad basin transversè fusco; thorace anticè haud emarginato, lateribus rectis (haud rotundatis), obliquatis, basi sinuato, sparsim et fortiter punctato, flavo; elytris 9 punctato-striatis (punctis frequentibus, sat magnis, nigris), interstitiis sparsissimè punctatis ad latera undique maculis tribus infuscatis, ad mediumque unâ plus minus transversà, corpore subtus punctato, flavo; pedibus rufo-fuscis, antennis rufis.

Long. corp. lin. 1; lat. lin.  $\frac{2}{3}$ .

The thorax of *H. simplex* is immaculate, the base and apex being sparingly punctate; the elytra have nine rows of large and closely arranged punctures, the interstices being also sparingly punctate; these punctures are black, the margins of the punctures being somewhat suffused; near the sides this suffused black colouring of the punctures is ante-medially, post-medially, and nearer the apex more confluent; thus forming three indeterminate infuscations; a similar cloudy marking is formed transversely near the middle.

A single example of this species is in my collection, taken by Mr. A. Adams, in a pond on Deer Island, Tsau-li-an, Korea.

## Tribus II. HYDROPORIDÆ.

Genus 1. Hyphidrus, Illig.

1. H. orientalis, n. sp.

Ovatus, brevis, crassus, suprà modicè convexus, fortiter punctatus, punctato-striatus, rufus, nigro-notatus; capite anticè marginato, sparsim punctato, rufo; thorace anticè emarginato, lateribus apicem versus contractis, haud rotundatis, marginatis, basi latè ad medium angulato, fortiter punctato presertim ad basin, rufo, ad mediam basin nigro-binotato; elytris robustis, brevibus, leviter unistriatis, fortiter punctatis, rufis, suturâ vittâ irregulari antè medium alterâque post medium inæqualibus undulantibus nigris, vittâ anteriori interdum ad medium elytri interruptâ, vittâ posticâ sæpius ad suturam maculam nigram undique continenti, arcuatâ; suturâ inter

vittas latè nigricanti; macula ad humeros et apice nigris; corpore subtus rufo; antennis pedibusque rufo-fuscis.

Long. corp. lin. 2; lat. lin. 14.

Among six examples before me there is but little variation in pattern, and none whatever in form or size: in the elytra the form of the anterior transverse band is inconstant, in some examples it is broader, and again it is occasionally interrupted in the middle; in the latter case presenting a short medial fascia and lateral insular marking. The species differs from H. pulchellus by its slightly less rounded form; H. orientalis, when seen from above, presents a very obtuse though manifest angle between the sides of the thorax and the elytra; in H. pulchellus the line is more rounded and entirely continuous: from H. eximius it is separated by its pattern: from both species also by its considerably larger size.

The examples of H. orientalis are all from the cabinet of Mr.

Bowring, and are all labelled "Amoy."

# 2. H. pulchellus, n. sp.

Subovatus, subrotundatus, brevis, suprà modicè depressus, punctato-striatus, fortiter punctatus, rufus, nigro-ornatus; capite anticè marginato, subtiliter punctato, rufo; thorace anticè emarginato, lateribus obliquatis, haud rotundatis, tenuè marginatis, basi latè ad medium angulato, fortiter sed inæqualiter punctato, fusco, ad latera latè rufo vel flavo-rufo; elytris rufo-flavis, suturâ vittâ latâ mediâ, maculâque ad apicem communi triangulari nigris, vittâ mediâ irregulari, maculâque apicali grandi, communi, et confusè definitâ; ad humeros macula nigra inconspicua latet; corpore subtus, pedibus, antennisque rufo-fuscis.

Long. corp. lin. 13; lat. lin. 1.

In this species the margin of the thorax is in the same continuous line (when seen from above) as that of the elytra; in pattern it resembles generally the last species, the broad black fascia of the elytra does not extend to the margin, its outline is irregular and interrupted, being generally broader as it approaches the margin; the suture below the fascia is broadly black; the apex is almost entirely occupied by a triangular marking of black, which leaves only a narrow and unevenly-bounded margin.

A specimen of this species was taken by Mr. Bowring, labelled

"Amoy."

## 3. H. eximius, n. sp.

Breviter ovatus, latus, supernè haud convexior, punctato-striatus, fortiter punctatus, rufo-flavus, nigro ornatus; capite anticè marginato, inter oculos undique depresso, leniter punctato, rufo, ad basin fusco adumbrato; thorace anticè emarginato, lateribus obliquis, haud rotundatis, marginatis, basi ad medium latè angulato; disco multi-punctato punctis magnis etiamque crebrius minutis, rufo-flavo, ad mediam basin et maculis duabus juxta basin nigro; elytris robustis, ad apicem subacuminatis, punctato-unistriatis, ut in thorace punctatis, rufo-flavis; suturâ, vittâ transversâ (haud dubito) mediâ, ad apicem plagâ communi, et ad humeros macula parva nigris; corpore subtus, antennis, pedibusque rufo-fuscis.

Long. corp. lin. 2; lat. lin. 15.

There is a general resemblance among these three first species of the genus; but each, as I have before noted, may readily be separated. The punctuation of this species somewhat differs from that of the preceding; it consists of larger punctuations, between which are more minute punctures: the pattern of the markings of the elytra resembles much that of *H. pulchellus*, the transverse fascia (in the single example before me represented by a shorter band and a lateral insulated marking of black) is narrower; two sub-circular, adjacent, flavous spots are well defined, one on either side of the suture in the midst of the triangular basal marking of fuscous. In size this species corresponds with *H. pulchellus*, in form it resembles *H. orientalis*.

I have a single example in my cabinet, which I obtained some years ago from Mr. Stevens, received by him from China.

## 4. H. nigro-notatus, n. sp.

Ovatus, latus, crassus, supra haud convexior, punctato-striatus, crebrè punctatus, nitidus, rufus, nigro-notatus; capite ad apicem marginato, inter oculos undique depresso, ad basin leviter punctulato, rufo-flavo; thorace anticè excavato, lateribus obliquis rectis tenuè marginatis, basi ad medium angulato, crebrè punctato, rufo-flavo, cum duabus maculis ad medium basalibus, vel rufo-flavo basi nigrâ, vel omnino nigro-fusco; elytris latis, unistriatis, crebrè punctatis, rufis, suturâ et undique lineâ parallelâ nigris, apice latè nigro; corpore subtus fusco vel rufo, pedibus antennisque rufis.

Long. corp. lin. 2; lat. lin.  $1\frac{1}{5}$ .

This species may readily be distinguished from *H. orientalis*, not only by the difference of its pattern, but also by its form and sculpture. *H. nigro-notatus* is a trifle more oblong, not so broadly rounded; the thorax is distinctly longer, and the punctures are not irregular in depth and breadth as in that species, but closely arranged and entirely similar; it differs also in form from the preceding species, being perceptibly more elongate: one example of the five before me has the markings on the elytra almost entirely obliterated.

From the Collection of Mr. Bowring.

## 5. H. bisulcatus, n. sp.

Ovatus, brevis, suprà sat convexus, crebrè punctatus, punctatostriatus, cinereus vel pallidè cinereus, nigro-lineatus; capite
ad apicem marginato et inter oculos subdepresso, leviter
punctato, testaceo; thorace anticè emarginato, lateribus obliquis haud rotundatis marginatis, basi haud sinuato, latè ad
medium marginato, leniter subpunctato, lateribus undique
tenuiter fuscis, ad basin undique ad medium nigro-adumbratis, lateribus latis, undique bistriatis, striis haud punctatis, crebrè punctatis, cinereis, suturâ, basi, marginibus
juxta apicem lineisque duabus nigris; lineâ ad marginem
tenui brevi, ad suturam latâ inæquali apicem versus ampliatâ;
corpore subtus flavo-rufo; pedibus et antennis cinereis vel
rufo-cinereis.

Long. corp. lin. 2; lat. lin. 14.

It is probable that the markings of this species may be subject somewhat to variation; but it is sufficiently characterized by the four impunctate striæ on the elytra; the markings of the elytra consist of two longitudinal fuscous lines, neither of them extending to the base or the apex; the line nearer the suture is irregular in form and towards the apex widens into a broad macula, in the midst of which is sometimes an insulated flavous marking, the line near the margin is narrower and regularly formed, extending to the apical macula. The especial character of the species, however, is a deeper sulcation, slightly curved and post-medial, in the stria which is nearer the margin; this, when seen obliquely, is considerably deeper and more apparent than the stria of which it forms a part.

This species has been taken by Mr. Wallace near Malacca.

## 6. H. rufus, n. sp.

Ovatus, brevis, crassus, corpore suprà convexiusculo, valdè punctato, rufo, nigro-lineato; capite anticè marginato, punctato, thorace anticè emarginato, ad latera obliquato (subrotundato) tenuè marginato, ad basin sinuato, et ad medium latè angulato, punctato, rufo, ad basin plus minus fusco-adumbrato; elytris latis, brevibus, densè et fortiter punctatis, suturâ et quatuor lineis nigris, parallelis, aliquando obscuris, interdum post medium breviter interruptis; corpore subtus valdè punctato, rufo; antennis pedibusque rufis.

Long. corp. 2 lin.; lat. 11/5 lin.

The only tendency to variation that I can trace in this species is the comparative obliteration of the longitudinal lines on the elytra; the dark-red colour pervades the whole of the surface, so as to render the markings somewhat obscure; in two examples the lines are interrupted behind the middle.

Examples of this species are in Mr. Bowring's Collection. From

the coast of China.

# 7. H. rufo-niger, n. sp.

Ovatus, brevis, latus, sparsim punctatus, punctato-striatus, nitidus, niger; capite inter oculos undique depresso, impunctato, rufo; thorace anticè vix emarginato, lateribus obliquis, haud rotundatis, basi ad medium latè angulato, tenuiter punctato, nigro-rufo; elytris marginibus cum thoracis lateribus vix angulum formantibus, punctatis, bistriatis, interstitiis sparsissimè punctatis, nigris vel rufo-nigris, nitidis; corpore subtus, antennis pedibusque rufis.

Long. corp. lin.  $1\frac{3}{5}$ ; lat. lin.  $\frac{4}{5}-1$ .

From China, taken by Mr. Bowring. I have also before me a single specimen from Mr. Bowring's Collection, labelled as from Java.

# Genus 2. Hydroporus, Clairv.

§ A. THORACE HAUD LONGITUDINALITER STRIATO.

# 1. H. carbonarius, n. sp.

Ovalis, penitus circularis, depressus, punctatus, carbonarius, nitidus; capite subtilissimè punctato, rufulo; thorace anticè emarginato, lateribus obliquis rotundatis, basi subsinuato, ad medium latè angulato, punctato, punctis crebris et distinctis,

nigro, ad latera subrufulo; elytris brevibus, haud punctatostriatis, punctatis; ad latera obscurè marginatis, nigris, corpore subtus rufo-fusco: antennis pedibusque rufis.

Var. Fusco-brunneus, insulam Javam habitat.

Long. corp. 1 lin.; lat. 4 lin.

This species in form is almost circular, of a bright, shining, black colour throughout, the head and the thorax only being tinged with rufous; the punctures are a trifle larger and more thickly disposed on the thorax than on the elytra; on the latter they are irregular and more minute, there being no trace of any striæ-like rows.

H. carbonarius is in the same section as Hydroporus (Hydro-ovatus, Motsch.) obtusus, Motsch., from India, which it nearly resembles: it is broader, less oblong, very slightly and not decidedly acuminated at the apex; it is more closely allied still with (though entirely distinct from) a species from N. York, which I have received as H. convexus of Aubé; as this name, however, seems to be indiscriminately applied to two or three N. American species, and is involved in doubt which I am not at present able to clear up, I need not more fully point out the distinctions.

The above diagnosis is drawn up from an example which Mr.

E. Adams took in Danes Island, China, in 1848.

I have received examples from Mr. Bowring, from Java, which, though slightly different in some details, I refer with hesitation to this species (pro tempore, at least,) as a variety; the colour is fuscous, or rufo-fuscous, rather than black.

## 2. H. badius, n. sp.

Breviter ovatus, latus, sat depressus, punctulatus, nitidus, rufoferrugineus; capite inter oculos undique longitudinaliter depresso, impunctato, rufo; thorace anticè emarginato, lateribus subrotundatis obliquis, basi rectilineari, haud sinuato, ad medium latè angulato punctato; elytris brevibus, ad humeros cum thoracis margine haud angulum formantibus, punctatis; corpore subtus, pedibus, antennisque rufis.

Long. corp. lin. 1; lat. lin. 3.

Four examples in my cabinet correspond exactly in punctuation and size: I may notice that this species, as well as other Asiatic species of *Hyphidrus*, shows that the limits of these two genera approach most closely each other; the distinguishing characteristic is found in the length, as compared with the breadth, of the joints of the anterior (dilated) tarsi of the male. In *H. badius*, manifestly

a Hydroporus, and of a subsection which has representatives nearly all over the world, the tarsi, by themselves, would almost determine it to be a Hyphidrus: I have seen, on the other hand, species of Hyphidri, which, if their position were decided by the form of their tarsi, would perhaps be grouped among the Hydropori. In Hydrocantharidæ at least (and in other families also), it is the general facies of an insect, although it may be difficult to express this in the exact terms of a critical diagnosis, which is a more truthful guide as to its natural position than either the joints of the tarsi or the structure of the mouth or any single separate organ, if considered by itself and without reference to the rest. The species before us nearly resembles H. Malaccæ; without close microscopic examination (which is absolutely necessary for the determination of all these minute species), it would perhaps be not easy to separate them; the thorax (longitudinally and medially) is deeper; that is, the angle of its base at the scutellary region is more acute, the anterior portion of the thorax is more distinctly punctate, the apex is less acuminated, and the lateral margin of the thorax is in one continuous line with that of the elvtra: when viewed laterally, the outline of the shoulders is more rounded, and forms a more marked angle with the sides of the thorax.

Taken by Mr. Adams in Danes Island, on the coast of China, and by him kindly presented to my collection.

## 3. H. Malaccæ, n. sp.

Breviter ovatus, rotundatus, sat depressus, punctatus, fuscorufus, nitidus; capite ad apicem leviter marginato, intra oculos undique foveolato, impunctato, rufo; thorace lateribus subrotundatis, basi ad medium angulato, punctato, anticè rarius: elytris sat latis, sensim acuminatis, punctatis; corpore subtus, antennis, pedibusque rufis.

Long corp. lin. 1; lat. lin. 4.

The only species known to me which this insect resembles is *H. badius*, from China: from this (though very closely resembling it) it may be separated by several distinctive features: when viewed laterally the margin of the shoulders in this species is more contracted, less rounded: there is a slight, though perceptible angle formed by the margin of the thorax and elytra, which does not exist in *H. badius*. The apex of the elytra is manifestly more elongate, and the punctuation also differs of the thorax.

The species has been taken by Mr. Wallace, near Malacca.

## 4. H. aberrans, n. sp.

Breviter ovatus, latus, parallelus, fortiter punctato-striatus, punctatus, testaceus, rufo-fusco notatus; capite leviter punctato, rufo-fusco; thorace anticè vix emarginato, lateribus rotundatis, basi pene transverso, crebrè punctato, testaceo, ad medium fusco adumbrato; elytris sat latis, fortiter undique striis punctatis octo latis ornatis, punctatis, testaceis, lineis tribus rufo-fuscis a basi ad apicem, subparallelis; corpore subtus fusco, antennis pedibusque rufo-flavis.

Long corp. lin.  $\frac{4}{5}$ ; lat. lin.  $\frac{1}{2}$ .

The only example that I have been able to examine of this species is an imperfect one received by Mr. Bowring, from Java: it presents very sufficient and striking characters; the form of the insect is short and parallel; the sides of the thorax are much rounded, compressed at the anterior and posterior angles; the elytra are marked by eight deep striæ, formed by closely arranged broad punctures; in colour the surface is testaceous, the interstices between the 1st and 2nd, the 3rd and 4th, the 5th and 6th striæ being irregularly rufo-testaceous.

## 5. H. pudicus, n. sp.

Ovalis, sat latus, et convexus, punctulatus, haud striato-punctatus, rufus; capite pallidè rufo, oculis magnis, impunctato; thorace anticè emarginato, lateribus tenuè marginatis, basi ad medium latè angulato, impunctato, rufo, ad basin fusco-rufo; elytris convexis, robustis, punctulatis, rufis vel fusco-rufis; pedibus, antennis, corporeque subtus rufis.

Long corp. lin. 1; lat. lin. ½.

H. pudicus is very nearly allied to H. rubescens: without careful examination the two species may be confounded together: the insect before us is altogether more robust, broader and not so long; the thorax is differently formed, being more narrowly transverse; the angle of the basal line near the scutellum is more distinct, and the margin of the thorax (when viewed laterally) is shorter, more in a line with the axis of the insect, and forming a much more obtuse angle with the shoulders of the elytra.

A single example before me was received by Mr. Bowring, from Java.

## 6. H. rubescens, n. sp.

Oblongo-ovalis, subtiliter punctatus, striato-punctatus, rufoferrugineus, nitidus; capite impunctato, rufo; thorace anticè, fortiter emarginato, lateribus subrotundatis basi pene recto, transverso, rufo; elytris parallelis, ad apicem subacuminatis, leviter striato-punctatis, rufo-ferrugineis; corpore subtus, pedibus antennisque rufis.

Long corp. lin. 1; lat. lin. 1/2.

A pretty and well defined species, elongate rather than subglobose, with elytra more parallel than in the preceding species; the punctures on the elytra are more distinct, the thorax is less transverse, its basal margin consisting rather of a straight transverse line than of an angle; the whole body is more depressed, the margins of the elytra being close to the paper on which it is gummed, as compared with those of the preceding species; the colour also of the elytra is darker; from other Eastern species it may be distinguished (so far as they are already known) by the absence of any longitudinal striæ at the base of the thorax or the shoulder of the elytra.

Received by Mr. Bowring, from Java.

## 7. H. tenellus, n. sp.

Oblongo-ovalis, attenuatus, apicè acuminatus, rufo-flavus, impunctatus, nitidus; capite rufo, impunctato; thorace latè transverso, anticè subemarginato, lateribus sat rotundatis, leviter marginatis, basi (supernè viso) transverso, flavo, maculis transversis ad apicem obscurè rufo-flavis; elytris ad humeros thorace haud latioribus, ad apicem acuminatis, impunctatis, rufo-flavis, ad margines flavis; pedibus, antennis et corpore subtus flavis.

Long corp. lin.  $\frac{3}{5}$ ; lat.  $\frac{3}{10}$  lin.

One of the smallest species of *Hydroporus* with which I am acquainted: in its oblong-ovate form it resembles much an elongate *Laccophilus*; the outline of the marginal line extends without any interruption or angle in one continuous curve from the head to the apex: its elongated form abundantly separates it from the preceding species of this subsection, while the absence of thoracic foveæ removes it from other species of the genus to which in form it is allied.

A single example was received by Mr. Bowring, from Java.

# § B. Thorace stria longitudinali vel obliqua haud elytris continuata.

8. H. orientalis, n. sp.

Oblongo-ovalis, subparallelus, post medium paululum latior,

punctatus, rufo-fuscus; capite inter oculos undique transversè foveolato, rufo-flavo; thorace anticè emarginato, lateribus subrotundatis obliquatis, basi subsinuato, ad medium leviter angulato, crebrè punctato, rufo-flavo ad basin transversè ad medium fusco, striis ad basin brevibus obliquatis; elytris ad latera angulum obtusissimum cum thoracis margine formantibus, sat elongatis, ad apicem subacuminatis, undique suturam juxta striatis, crebrè punctatis, rufo-fuscis, maculà undique transversà subtriangulari, (ante medium, suturam haud attingenti,) vittàque ad marginem usque ad apicem flavis; pedibus, antennis, corporeque subtus flavis, vel rufo-flavis.

Long corp. lin. 1; lat. lin. 1.

This species is apparently subject to variety in shade of colour rather than in pattern: the irregularly-formed, subtriangular, antemedial marking is constant in form; in no case does it reach the suture: it is connected with an irregular lateral marking, which (broader, post-medially) extends to the apex; thus causing the apex itself to be transversely flavous. H. orientalis may be separated from others of this subsection by the direction of the thoracic fovea, which is not longitudinal but distinctly oblique.

Taken in China, and also received from Siam by Mr. Bowring.